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Driver Education
in the
Secondary Schools

A Tentative Guide For Traffic Safety

BULLETIN 395
1946

Commonwealth of Pennsylvania
DEPARTMENT OF PUBLIC INSTRUCTION
Harrisburg

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Foreword

ONE OF the most important problems challenging society today is the urgent need of reducing materially the terrific loss of life and property caused by accidents on the highways.

Pupils in today's classrooms will be tomorrow's motorists. Since nearly all pupils wish to become drivers at the age of sixteen, the Interdepartmental Committee on Highway Safety Education, composed of representatives of the Departments of Revenue, Highways, Public Instruction, and the Pennsylvania State Police, together with the commercial user groups, the Interstate Cooperation Safety Education Committee, and public school representatives, believes it is the duty and responsibility of the public schools of the Commonwealth to teach these future motorists to be safe, courteous, and skilled drivers.

With this in mind, the Division of Highway Safety Education has prepared this Tentative Guide to assist school administrators in installing courses and teaching Driver Education in the secondary schools of Pennsylvania.

In the preparation of this guide, acknowledgment is made to the staff of the Department of Public Instruction and to interdepartmental staff members for their valuable suggestions.

The work of preparing the Guide was done by Ivan J. Stehman, Chief, Division of Highway Safety Education, Department of Public Instruction, under the general direction of Paul L. Cressman, Director of the Bureau of Instruction. Rachel S. Turner, Editor for the Department, advised in the preparation of the Guide.

Francis B. Haas

Superintendent of Public Instruction

August, 1946.

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Introduction

EVERYONE CONCERNED with conservation of human life is alarmed concerning the number of highway accidents caused by drivers of high school age. Increased use of highways by young drivers in the years ahead will increase the problem of highway accidents.

Statistics regarding accidents reveal that drivers sixteen years of age constitute an accident hazard nine times greater than drivers forty-five to fifty years of age![1] To date improvements in the highways and in the automobiles have been the greatest contributions made to safe driving. The current traffic accident statistics point to a critical need for a more effective safety education program in the schools. Driver Education as an integral part of the curriculum for students approaching legal driving age has proved to be one effective means of helping this age group to become better drivers.

Information gathered by the National Safety Council, automobile clubs, New York Center for Safety Education at New York University, and The Pennsylvania State College Institute of Public Safety, provides ample justification for such a program in the secondary schools. Driver Education, if properly supervised, affords the greatest opportunity for the development of skills in driving.

It is, therefore, important that high school youth be educated through a carefully organized program to control and command their own powers, to focus them on a single objective, and to mobilize them quickly and completely when the need arises. Training in traffic safety has definite value in preparing drivers to be courteous, safe citizens on our highways.

This tentative manual should be considered as a guide to the scope of the course and not as a text or a reference book. For the most part, the topics were taken from the following sources and acknowledgment is hereby given for much valuable information used in developing this guide.

1. The Sportsmanlike Series, prepared under the direction of Burton W. Marsh, American Automobile Association, Washington, D. C., or local AAA branches.
2. Highway Safety Textbook, furnished by the Keystone Automobile Club and published by Westbrook Publishing Company, Philadelphia, Pennsylvania.
3. National Conservation Bureau, 60 John Street, New York, 7, N. Y.
4. The Course of Study written and prepared by the Department of Public Instruction in each of the following states:
    a. New York, Driver Education and Training for Secondary Schools.
    b. Ohio, Highway Safety, A Manual for Secondary Schools.
    c. New Jersey, Highway Safety, A Course of Study for High Schools.
    d. West Virginia, A Course of Study in Driver Education.

Teachers will find these sources helpful references in planning individual units.

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[1] "Accident Prone Driver," House Document No. 462, U. S. Gov't. Printing Office, 1938. Table 33.

NEED FOR DRIVER EDUCATION IN SECONDARY SCHOOLS

DRIVER EDUCATION is vital to the success of the safety movement. "The schools have had a worthy part in work already done. Important results have been secured, but there is still so much to do that what has already been done should be considered only as the groundwork for the accomplishment of the future." . . . *Safety Education,* 18th Yearbook of the American Association of School Administrators, N. E. A., 1940. The need for Driver Education is measured by the fact that automobile accidents in the United States during the next five years may take a toll in injured of approximately 5,000,000 and in dead of approximately 200,000 persons, not to mention property damage running into millions of dollars.

The cost of insuring all automobiles in the United States for property damage and personal liability would amount to billions of dollars. In the cost of Driver Education, we have theoretically a possible saving of money since the higher the death and accident rate, the higher the insurance rate. On the other hand, the lower the death and accident rate, the lower the cost of insurance to the driver.

Actual studies of the low accident records of those who have received training in behind-the-wheel courses such as are given at Cleveland, Ohio, show that for every dollar spent in Driver Education, there is a manifold saving in property damage alone, not to mention the saving of life and limb.

The beginning driver knows only what he has picked up while watching some other person drive. Very often that person is a "below-the-average" driver. The new driver may be able to start the car and get it into motion; he may know a little about traffic rules and regulations and the hazards of driving; but his behavior in complex traffic situations is unpredictable.

Analyses of the causes of traffic accidents clearly indicate that human factors such as wrong attitude toward highway privileges, lack of skill in the management of a car, ignorance of traffic regulations, bad habits and carelessness in observing intersections, lights, signs, signaling, etc., and intoxication account for the majority of accidents. Education must play a major role in any program which aims to eliminate these causes.

ESTABLISHING A SOUND PROGRAM IN DRIVER EDUCATION

Objectives

Study of the actions of drivers and pedestrians on the street will convince the competent observer that the following objectives set up for Driver Education courses, if attained, will contribute very materially to the improvement of traffic conditions. An effective program for teaching Driver Education in the high school must have the following outcomes:

1. It must bring to the boys and girls: (a) a realization of the effect on safe conduct of physical, mental, and emotional traits and habits of drivers and pedestrians; (b) a recognition of their own deficiencies which may affect their practices; and (c) a knowledge of the steps that they can take to remedy or compensate for such deficiencies.

2. It must establish in the minds of boys and girls sound principles and practices fundamental to safety and efficiency in traffic, whether as driver or pedestrian, in Maine or California, in city or country, in daylight or darkness.

3. It must provide for establishment of such habits and the perfecting of such skills as will embody the basic principles of safety and as will assure the boy or girl safe and efficient performance as driver or pedestrian.

4. It must develop among high school youth attitudes, appreciations and understandings essential to (a) safe, sane, cooperative, sportsmanlike use of our streets and highways; (b) sincere acceptance of individual and group responsibility for conservation of health, life, and property in traffic; and (c) further development and improvement of traffic conditions through programs of engineering, legislation, enforcement, and education.

Through such a program as these objectives indicate, it is possible to train annually a million and a half young people from the 25,000 high schools throughout the country to be better drivers than the average drivers of today.

The Essential Requirements to be Met in Driver Education

The essential requirements to be met by a Driver Education program are:

1. Development of an adequate classroom program including a study of
    - a. Need for Driver Education.
    - b. The characteristics of a good driver.
    - c. Sound pedestrian practices.
    - d. Driver's responsibilities and sound driving practices.
    - e. Society's responsibilities.
    - f. Preparing the pupil for road training.
        - (1) Mechanism and care of the car.
        - (2) How to drive the car.

2. Development of an adequate road instruction program including
   a. Actual driving practice behind the wheel.
      (1) Under the guidance of a competent and especially prepared teacher.
      (2) In a dual control driver training car.
      (3) Using street or off-street area especially marked for this purpose.
   b. Insurance protection.
   c. Tests for driving skill before beginning traffic driving.
3. Establishment of qualifications for behind-the-wheel instruction.
   a. Student sixteen years of age or over and a member of the senior high school.
   b. Student have a learner's permit, issued by the Commonwealth of Pennsylvania; and a permission card, signed by parent or guardian.
   c. Student make a passing grade in the True and False Test in Driver Education especially prepared for students.
   d. Student be certified at time of required health examination by school physician as free from any physical or mental defect which would be a safety hazard in behind-the-wheel driving. If such defect is remediable, proof to be furnished of remedial work before the student is admitted to behind-the-wheel courses.
   e. Student be enrolled in, or have completed, the classroom instruction in Driver Education.
   f. Student be willing to cooperate in driving the car three or more hours per week.
   g. Student continue driving until the instructor judges him fit for the test.

Points to Consider in Setting up a Driver Education Course

1. Classroom Instruction.

Driver Education should aid in establishing and developing in young drivers proper attitudes, habits, and skills necessary for safety in traffic.

The Driver Education Course should be placed in the curriculum on the same basis as any other subject with enough time provided to complete thirty-six hours of classroom instruction plus fifteen to thirty hours of driver training. There are various arrangements that may be followed, including the possibility of driver training instruction offered concurrently with classroom instruction. Classroom instruction need not always precede driver training instruction.

Phases of Training. Driver Education is divided into two phases:
   a. Classroom instruction in traffic and pedestrian safety.
   b. Driver training in actual behind-the-wheel instruction.

Time. The minimum time required to complete the course in classroom instruction is one hour per week for thirty-six weeks, or two hours per week for one semester; plus a minimum of fifteen, a maximum of thirty hours for the completion of behind-the-wheel training. Much depends upon the local situation in the scheduling of this instruction as to whether it is intensive instruction over a short period of time, such as five hours or more for a number of weeks, or whether it consists of fewer periods a week over a longer period of time, such as two hours per week for one-half year or one hour per week for a full year. The plan followed should be the one that will best fit into the program of the school involved.

Place in the Curriculum. Experience has shown that the best time to provide Driver Education for the beginning driver is at the time the students apply for their Learner's Permit. The Vehicle Code of Pennsylvania sets the age at which application may be made for a Learner's Permit at sixteen, providing the parent signs a Financial Responsibility Clause. In conformity with these facts, the Committee recommends driver instruction to all boys and girls some time during the high school years. The most common age of the student in the eleventh year in school is sixteen. Therefore, it seems advisable to introduce the student to Driver Education during the eleventh year of school. Where high schools cannot provide Driver Education in the junior year, it may be given during another year.

Required or Elective. Driver Education may be either an elective or a required course subject to the planning of the school administration.

Credit. Schools may grant students completing the Driver Education course 1/5 to 1/4 unit of credit when operating a complete course of classroom and behind-the-wheel training. Such a course involves a schedule of one hour per week for one year or two hours per week for one-half year plus a minimum of fifteen hours behind-the-wheel instruction.

It is recommended that 1/4 unit of credit be given to those students who have completed both classroom and behind-the-wheel instruction, and only 1/5 unit of credit be given to those students who have completed only classroom instruction.

It is further recommended that 1/4 unit of credit be given by schools which can accommodate all students in both classroom instruction and behind-the-wheel instruction, and 1/5 unit of credit be given by the schools providing only classroom instruction and by schools providing classroom instruction to a larger group than can be accommodated in behind-the-wheel instruction.

Teacher's Qualifications. Where possible one teacher should be made responsible for the course, although it may be necessary to use several teachers in the teaching of the various units. Every effort should be made to select teachers who have a real interest in promoting the course, and who in addition are willing to work untiringly to make Driver Education a success.

A teacher in Driver Education should possess the following characteristics:

a. Enjoy working with young people of high school age.
b. Be qualified to adapt and create instructional materials, graphs, charts, and miniature driving situations in order to make his teaching effective.

c. Be able to work well with groups; be a good speaker in order to publicize the program favorably in the community.

d. Be emotionally stable, mature in actions, and be able to command the respect of the youth and adults of the community.

e. Have met all requirements prescribed by the State or local authorities for the operation of an automobile, where Driver Education involves the operation of the automobile.

f. Meet requirements for teacher certification in the field of Driver Education as set up by the Department of Public Instruction.

2. Behind-the-wheel Instruction.

Driver Training is that phase of Driver Education in which the student receives behind-the-wheel instruction under the supervision of a trained instructor. Many schools may wish to start behind-the-wheel instruction concurrently with classroom instruction. How to select the pupils for the first class in behind-the-wheel instruction is always a problem. This problem may be partly solved by giving the True and False Test especially prepared for Driver Education to all pupils in the class at the beginning of the course. The True and False Test may be found on page 34 of this guide. Experience has shown that pupils who make the highest scores on such a test are usually the better informed students in Driver Education. These are the students who should be chosen for the initial class in behind-the-wheel instruction. It is the responsibility of the instructor in charge of the course to arrange adequate provision for subsequent classes in behind-the-wheel instruction.

Students receiving behind-the-wheel training should practice in the car for three hours per week for ten weeks, or five hours per week for six weeks. The number of hours each student practices in the car in road instruction will depend on how fast the individual learns.

Experience indicates that the average beginning pupil will complete the training course in twenty-eight to thirty-two hours of behind-the-wheel instruction during which time the student will actually have driven the car from six to eight hours. The remaining time will be spent in observing approved techniques, experiences and instructions given other students driving the car. If four pupils are in the car at all times, each one should receive twenty-eight to thirty-two hours in operation and observation of proper driving practices. All students will not require this amount of time for road training and should be allowed to advance to other instructional units as fast as possible. This will permit the student to complete the course in a shorter time. Upon completion of the course the pupil should be recommended for the final State examination given by the Pennsylvania State Police.

In such group instruction each pupil advances at a rate of speed determined by his ability to master skills. Beginning students will learn from observing the habits of more advanced students while advanced students will note mistakes of beginning students.

Road Training Procedures

a. Each pupil who has fulfilled the essential Driver Education requirements as listed on page 4 should next receive road instructions as described above.

b. The following is the proper procedure for handling a group of students in car operation: The students are numbered one through four. The instructor gives students the necessary demonstration of the car operations and the skills to be learned. The instructor at all times must be in the front seat of the car as each one of the members of the group practices these skills. The students rotate through their period of study; number one starting the practice, and the others following in their turn. This means that each student will actually handle the car twelve to fifteen minutes out of each hour. If it is impossible to give all this road training in the regular class period, study periods and before-and-after-school periods may be used.

c. Prior to practice in car operation, the instructor should provide necessary job instruction sheets for each pupil. No pupil should be provided with advance job instruction sheets until he has completed the previous lesson. The instructor should keep an accurate record of the amount of time that each person has spent behind the wheel and the quality of work that has been performed by each student in each road training period.

FITTING DRIVER EDUCATION INTO THE CURRICULUM

The placing of the Driver Education course in the school program is a responsibility of the individual school administrator. It is suggested that schools aim to cover the work outlined in the six units, that the course be considered a part of the school curriculum in the same manner as a course in English or science, and that it be scheduled in the same way.

Suggestions follow for the placing of Driver Education in the curriculum.

Plan 1.

a. As a complete, separate course taught one period a week for a full year with behind-the-wheel instruction taught during unassigned periods or during activity periods and if necessary before and after school. This program is recommended where one teacher teaches the classroom instruction and another teacher, the Driver Training instruction. The classroom teacher is responsible for the entire course. He handles all the classroom instruction, makes all arrangements for the students to receive behind-the-wheel instruction. The classroom teacher decides what pupils are eligible to take the road instruction, makes up pupils' schedules, and is responsible for all reports which should be kept while the course in Driver Education and Training is in operation.

b. As a separate course where the classroom training and behind-the-wheel instruction are taught concurrently, the class meeting five times a week for one semester, with two periods a week for classroom instruction and three periods a week for road instruction. This plan can be handled by one instructor but the number of students in the class must be limited, and the class in behind-the-wheel instruction must be divided into groups of four. There is difficulty in placement of the remainder of the class when the instructor is instructing four students in the car.

Plan 2. As a unit in connection with various departments such as social studies, physics, chemistry, and health and safety education. The integration of the work with English is possible by having English teachers assign pupils written topics dealing with highway safety education. The physics teacher can cooperate by having units on friction, centrifugal force and momentum, as well as instruction in starting and stopping under various speed and road conditions.

The chemistry teacher can provide units dealing with carbon monoxide gas, anti-freeze, alcohol, etc. The social science teacher can discuss rules and regulations on highway safety in relation to society. Under this plan the behind-the-wheel instruction would be a separate unit, and the pupils would receive this instruction at some other time, such as study hall periods, or at such time as they would be available without interfering with other subjects.

Plan 3. As a course scheduled to alternate with Physical Education.

Plan 4. As a complete course taught twice a week for one semester to any boy or girl attaining his or her sixteenth birthday, regardless of the secondary school class in which the student is enrolled. This gives every boy and girl an opportunity to take Driver Education at the time closest to the legal driving age. A course in Driver Education should be started at the beginning of each semester. Two periods per week could be devoted to classroom instruction and three periods a week or more to behind-the-wheel instruction. This plan lends itself well to club work and can be taught by one instructor.

In planning how the course can best be fitted into the curriculum the school administrator will do well to consider

1. The district.
2. The enrollment of the school.
3. Whether the school offers both the classroom and behind-the wheel phases of Driver Education.
4. The number of teachers used in conducting the course.
5. The number of cars available for behind-the-wheel instruction.

The success of the course will depend to a considerable degree on

1. The type of teacher selected to handle the work.
2. The place of Driver Education in the curriculum.
3. The amount of time provided for Driver Education.

It is possible for schools initiating courses in Driver Education which have not yet secured all facilities necessary for the behind-the-wheel units, to begin with the classroom units. The administrator in his long range plan, however, should include provision for behind-the-wheel instruction units at the earliest possible time.

The Interdepartmental Committee on Highway Safety Education recommends the introduction of the course in its entirety.

MATERIALS AND EQUIPMENT FOR THE DRIVER EDUCATION PROGRAM

Material Available for Classroom Instruction

The units as presented hereinafter in this manual are offered as a general guide for the conduct of the course. The materials recommended seem the best subject matter in the field of Driver Education at the present. The time to be devoted to each unit is left to the discretion of the instructor who must keep in mind the individual abilities of the students.

The Interdepartmental Committee on Highway Safety Education is not recommending any particular textbook or course of study, but is suggesting to individual schools two organizations which have available complete courses of instruction in Driver Education.

1. National Conservation Bureau, 60 John Street, New York 7, N. Y.
    - Man and the Motor Car, Revised Edition
    - Teacher's Manual
    - Administrator's Manual—Driver Education and Training
    - Standard Tests in Driver Education
    - A Manual of Driver Testing Devices
    - A New Approach to Driver Education
    - Driver Education News
2. American Automobile Association, Pennsylvania Ave. at 17th St., Washington 6, D. C.
    - Teacher's Manual
    - The Sportsmanlike Driving Series
    - Standardized Tests for Classroom and Driving Exercises
    - Plans for Building Driver Testing Devices
    - Bibliography of Traffic Safety Materials
    - Film Bibliography

Either one of these courses can be used in covering the teachers' instructional units set up in this guide.

Material and Equipment for Road Instruction

In order to make the road instruction practical, it is necessary to arrange for a practice street or field which will present many of the actual driving situations that the beginner will experience. This can be accomplished by selecting a quiet street that is free from traffic and marking it off with pedestrian crosswalks, center lines, traffic lanes, parallel and angle parking lines, and erecting temporary stop signs, other warning signs, blinkers, and traffic lights. (These accessories can be made in the school shops.) This practice place should also include right and left turns and a grade.

Dual control cars prevent mishaps and produce smoothness of operation during the preparation period. Such a set-up gives the teacher a clutch and brake pedal conveniently located so that he has full control from his seat at all times. This auxiliary equipment is connected to that used by the beginner who is behind the wheel. Expert gear shifting and proper speeds are learned rapidly through this dual control because the instructor assists from his seat during the first periods of learning. This help, however, should cease as soon as the correct habits are formed so that the new driver will not depend too much upon the teacher.

Other important aids necessary during the preparation period are stanchions, cartons, or saw horses. These aids are used during the practice periods in parking and in perfecting skill in judging depth and space to right and left of the car. If the beginner brushes a stanchion or carton, little if any damage is done to the instruction car, but if real cars were used as guides and brushed, in addition to the damaged car the instructor would have a nervous and excited driver. Every precaution should be taken to see that conditions are conducive to correct performance of sound driving techniques the first time the student operates the car. This tends to eliminate the formation of unsound and unsafe driving habits from the beginning.

Several additional pieces of equipment including the decelerometer, jerk recorder, and brake detonator prove very helpful when evaluating instruction in behind-the-wheel driving. Through the use of a number of these devices, the new driver is impressed with the many problems faced by drivers and his part in being able to cope with these problems. These tests also make excellent demonstrations for the creation of interest on the part of the public.

TEACHER'S OUTLINE OF INSTRUCTIONAL UNITS

UNIT I—The Need for Driver Education

Objectives

A. To establish a background in relation to the principal historical developments of the motor vehicle.
B. To effect a realization of the social and economic significance of transportation.
C. To establish recognition of the number of automobile accidents.
D. To arouse an interest in improving traffic conditions by education.

Outline of Work

A. Facing the Statistical Facts.
  1. The Nation's Record.
    a. The automobile—a competitor of war and disease for an increasing death rate.
    b. The present trend.
  2. Pennsylvania's Record.
    a. Statistics of automobile accidents from 1925 to 1946.
    b. Comparison of Pennsylvania's record with those of other states.

B. Accident Problems and Their Effect.
  1. The challenge for safety.
  2. Conservation of human life.
  3. How to cut down accidents.
  4. Making Americans safety-minded.
  5. Automobile insurance.

C. Causes of Accidents.
  1. Faulty habits and attitudes of the driver.
  2. Faulty habits of the pedestrian.
  3. Mechanical defects of the automobile.
  4. Highway construction.
  5. Inclement weather.
  6. Wrong choice of speed.

D. Youth's Relation to Accidents.
  1. Age of driver in relation to accident rate.
  2. Percentage of accidents caused by various age groupings.
  3. Good and faulty traits of the young driver.
  4. Driving different cars without allowing for their individual differences.
  5. Lack of responsibility.
  6. Desire to go places.

E. Parent's Cooperation.
  1. Insistence on proper training before allowing children to drive.
  2. Parent's supervision of use of the family car.
  3. Sharing the family car with young people.
  4. Teaching youth discipline and regard for the law through driving.
  5. Working for community driving courses.
  6. Legal responsibility of the parent.

F. Why Driver Education for the youth without a car?
  1. Preparation to meet possible emergencies.
  2. Preparation to meet possible requirements of a future job.
  3. Preparation for car ownership.
  4. Teaching pedestrian responsibilities.

Discussion Questions

A. Discuss early conveyances; conveyances members of the class have seen actually or in pictures.

B. Discuss the value of the automobile as a means of recreation in making accessible to the people Pennsylvania parks, forests and other places of interest.

C. How has the invention of the automobile affected the social and economic life of the people of the United States?

D. State the number of injuries and deaths that have occurred on the highways of the United States during the past several years. Review the highway accident record of your own city and county.

E. Name and explain the three chief causes of motor vehicle accidents. Name five others.

F. How do you account for the extensive use of the automobile in the United States as compared with its use in other countries?

G. Discuss the advantages and disadvantages of owning an automobile.

H. What likelihood is there that the airplane may take the place of the motor car, just as the automobile took the place of the horse and buggy? Give reasons for your answer.

Activities

A. Form committees to interview motor car dealers in your community to see if any would be able to show you motion pictures of a subject suggested in this unit.

B. Make a collection of pictures showing the earlier models of motor vehicles. Compare with present cars.

C. Secure data from State agencies about motor vehicle accidents over a period of ten years.

References

American Automobile Association: Society's Responsibility p. 1-25.

American Automobile Association: The Driver, p. 1-10.

Keystone Automobile Club: Highway Safety Textbook for High Schools, p. 1-12.

National Conservation Bureau: Man and the Motor Car, Revised 1941, p. 227-236.

National Safety Council: Accident Facts (Current Edition).

Pennsylvania Highway Safety Council: You Can Solve the Traffic Problem.

Magazines publish articles on the history and the social and economic implications of the automobile. Many articles have appeared in such magazines as *The Reader's Digest, Saturday Evening Post, Atlantic Monthly, Forum, Literary Digest, American Magazine.* School or city libraries will have files of such magazine material.

Visual Aids

The Automobile: State of Ohio Department of Education, Columbus, Ohio.

Development of Transportation: State of Ohio Department of Education, Columbus, Ohio.

Land Transportation: State of Ohio Department of Education, Columbus, Ohio.

Wheels of Progress: Department of Agriculture, Washington, D. C.

UNIT II—The Driver—Physical, Mental, and Emotional Qualities

Objectives

A. To provide students an opportunity to take personal inventory of the physical, mental, and emotional factors which determine efficiency in driving.

B. To bring about a realization that attitudes, habits, and emotional reactions affect driving efficiency.

C. To learn how to eliminate or compensate for certain attitudes, habits, and disabilities.

D. To give the beginning driver an understanding of the handicap of physical, mental, and emotional defects and disorders; of the possible hazards unfitness may create; and to instill in him a desire to keep fit.

Outline of Work

A. Relation of Personality to Safe Driving.
   1. Qualities of personality.
   2. Studying one's own personality.
   3. Suggestions on development of attitudes and habits that make a good driver.

B. Psychology of the Driver.
    1. Importance of habit in driving.
    2. Importance of attitude in driving.
        a. The inattentative driver.
        b. The temperamental driver.
        c. The irresponsible driver.
    3. Why drivers differ.
        a. Heredity.
        b. Environment.
        c. Training.
    4. Bad risks as drivers.
        a. Show-offs.
        b. Egotists.
        c. Persons with inability to control the thrill of power while at the wheel.

C. Physical Defects.
    1. Eyesight.
        a. Eye defects and causes.
        b. Method of testing eye defects.
        c. Methods of compensating for eye defects.
    2. Hearing.
        a. Hearing defects and causes.
        b. Method of testing defects.
        c. Methods of compensating for hearing defects.
    3. Muscular coordination.
    4. Causes of special disabilities.
        a. Carbon monoxide gas.
        b. Alcohol.
        c. Fatigue and drowsiness.
    5. Other defects—permanent and temporary.

D. Emotional Control.
    1. Importance of analyzing basis for emotional reaction.
    2. Poor emotional control.
    3. Attaining emotional maturity.
    4. Special hints on learning to control emotions.

E. Mental Disorders.
    1. Nature of mental health disorders.
    2. Physical factors in mental health.
    3. How emotional and mental habits affect the body.
    4. Treatment of mental disorders.
    5. Insanity.

F. Reaction Time.
    1. What it is; its effect on driving.
    2. Its relation to physical defects.
    3. Different kinds of reaction.
    4. Average length of reaction time.
    5 Compensation.

Discussion Questions

A. What is the policy of Pennsylvania in regard to refusing licenses to people with disabilities?

B. Define a competent driver.

C. Is the drunken driver a problem in your community? If so, what measures should be taken?

D. Which is responsible for the greater number of highway motor vehicle accidents: failure of the vehicular mechanism, or careless control of the operator?

E. Write a paper on the physical and mental qualities which a good driver should possess.

F. If the reaction time of the average driver is .75 of a second, his reaction stopping distance will be 33 feet at 30 miles an hour. What would it be at 40 miles per hour? At 50 miles per hour?

G. After testing program, have all pupils rate themselves as to (1) clearness of vision, (2) tunnel vision, (3) color blindness, (4) depth perception. See The Driver, p. 36-44.

Activities

A. Have a committee attend a session of the Traffic Court. Decide whether the violations were due to physical unfitness, mental unfitness, wrong attitudes, etc. Report findings to class.

B. Prepare a list of mental and emotional qualities which a star athlete must possess. Which ones apply to the expert driver?

C. Interview a traffic officer and get his opinion concerning the effect of improper driving attitudes on traffic violations.

D. Investigate the truth of the statement, "Young people have the poorest driving records." Submit the report to the class.

References

American Automobile Association: The Driver, p. 11-85.
Keystone Automobile Club: Highway Safety Textbook for High Schools, p. 30-38.
National Conservation Bureau: Man and the Motor Car, Revised 1941, p. 52-79.
Pennsylvania Vehicle Code.
Your Health & Safety, Harcourt, Brace and Co., New York and Chicago, p. 333-375.

Visual Aids

Everybody's Business. Chrysler Corp., Plymouth Div., Detroit, Mich.
Once Upon a Time. Metropolitan Life Insurance Co., New York, N. Y.
Remember Jimmy. Fireman's Fund Insurance Co., San Francisco, Calif.
Turn About Man. Chevrolet Motor Co., Detroit, Mich.
We Drivers. Highway Safety, General Motors Corporation, Detroit, Mich.

UNIT III—Understanding Driver and Pedestrian Responsibility

Objectives

A. To make the pedestrian conscious of his responsibility for personal safety in this age of rapid transportation.

B. To promote cooperation between the driver and the pedestrian.

C. To aid pupils in recognizing the rights and privileges of pedestrian highway-users.

D. To encourage young drivers to consider pedestrians' habits.

Outline of Work

A. What are the Facts about Pedestrian Accidents?
  1. The story told by statistics.
  2. Comparative analysis of accidents involving vehicles and pedestrians.
  3. Causes.
    a. Violation of safety rules.
    b. Time of day.
    c. Weather.
    d. Person at fault.
    e. Location in city and country.

B. The Reason for Driver and Pedestrian Individual Differences.
  1. Physical and mental condition.
    a. Pedestrian—may be deaf, crippled, blind, ill, tired, a child, aged, feeble-minded, intoxicated, or confused.
    b. Driver—may be late for appointment, distracted, sleepy, under emotional strain, intoxicated, operating car with faulty brakes, lights, or other defects.

C. Reasons for Pedestrian Inefficiency in Relation to Traffic Problems.
  1. Carelessness in safety practices.
  2. Conversation with others.
  3. Weather conditions.
  4. Use of umbrella.
  5. Walking with arms full of bundles.
  6. Running across street.
  7. Unable to remain calm in traffic situations.

D. Study of Community as a Whole.
  1. Signs and other ways of regulating traffic.
  2. Bus lines.
  3. Traffic hazards.
  4. Playing on streets.
  5. Protection to and from school.
  6. Absence of sidewalks.

7. Getting off and on vehicles.
8. Parked cars.
9. Routes to and from school and to and from other activities.

E. Child Pedestrians.
   1. Skates.
   2. Sleds and wagons.
   3. Perambulators.
   4. Playing in streets.
   5. Bicycles.

F. Pedestrian Cautions.
   1. Entering or leaving bus, street car, or automobile; getting on or off bicycle.
   2. Crossing streets.
   3. Coming from behind parked cars.
   4. Walking in crowd on rural highway.
      a. Face traffic.
      b. Walk single file, or two abreast.
      c. Wear white clothing or carry light at night.
      d. Walk off roadway.
      e. Hitch-hikers.

G. Pedestrian Score Card (Department of Public Instruction, Bulletin 393).

Discussion Questions

A. In what ways can a pedestrian warn drivers of his intentions?

B. What type of pedestrian accidents is most common?

C. What precautions need to be taken by a person waiting for a street car? Leaving a street car? Getting out of a parked automobile?

D. Suggest ways by which the community may aid in reducing child pedestrian accidents.

E. How can bicycle riding be made safe?

F. Discuss liability of property owner for safety of pedestrians.

G. What are the general measures to insure pedestrian safety?

H. What are the driver's responsibilities in regard to pedestrian safety?

Activities

A. Make a list of ten safety rules for pedestrians.

B. Report on recommended provisions in "Model Traffic Ordinance" and in the "Uniform Act Regulating Traffic on Highway".

C. Secure copy of self-inspection blank on pedestrian safety for pupils. Department of Public Instruction, Bulletin 393. Take the test.

References

American Automobile Association: Driver and Pedestrian Responsibility.

Department of Public Instruction, Bulletin 393.

Keystone Automobile Club: Highway Safety Textbook for High Schools, p. 53-59.

Motor Vehicle Laws of Pennsylvania.

National Conservation Bureau: Man and the Motor Car, Revised 1941, p. 201-213.

Safe and Sane Uses of Highways, Chapter III.

UNIT IV—Driver Responsibility and Sound Driving Practices on the Highway

Objectives

A. To create an appreciation of the necessity of rules and regulations governing traffic on the highway.

B. To create an understanding of the relation between sound driving practices and laws.

C. To foster the spirit of encouraging others to drive safely and to obey the rules of the road.

D. To acquaint the driver with signs, signals and markings provided for safety.

Outline of Work

A. Development of Rules of the Road.
  1. Custom and old rules.
  2. Pennsylvania traffic regulations.
    a. Meeting and passing.
    b. Turning and backing.
    c. Parking.
    d. Right-of-way.
    e. Pennsylvania speed laws.
  3. Greater complexity of modern motor traffic in relation to rules.
  4. Future rules to be put into practice.

B. Man-made Laws and Natural Laws.
  1. Natural law as applied to driver.
  2. Natural law and the operation of an automobile.
  3. Law of friction applied to tires and brakes.
  4. Centrifugal force on curves.
  5. Gravity and the speed of a car down hill.

C. Pennsylvania Official Traffic Signs, Signals and Markings.
  1. Definitions.
    a. Relating to the highway.
    b. Relating to the traffic.
    c. Relating to the signs.
    d. Relating to the markings.
    e. Relating to the signals.
    f. Relating to the islands.

2. Traffic Signs.
    a. Regulatory.
    b. Warning.
    c. Guide.
    d. Design.
    e. Location and Installations.
3. Traffic Signals.
    a. Standardization.
    b. Value of signals.
    c. Classification.
    d. Design.
    e. Location.
4. Pavement Marking.
    a. Standardization.
    b. Classification.
        (1) Pavements.
        (2) Curves.
        (3) Objects.
    c. Regulatory marking.
    d. Informatory marking.
    e. Design of markings.

D. City and Rural Driving.
    1. Signal—mechanical and hand.
    2. Driving in heavy traffic.
    3. Proper speed for various traffic conditions.
    4. Attitude toward pedestrian and driver in danger zones.
    5. Attitude toward signs prohibiting parking.

E. "Courtesy Rule" as Applied to Conditions.
    1. Principle of sportmanship in driving.
    2. Accident situation in which discourtesy is a factor.
    3. Acts of discourtesy.
    4. Acts of good driving based upon courtesy.
    5. Driving according to conditions.
    6. The show-off.

F. Rules and Regulations Governing:
    1. Safety equipment.
    2. Financial Responsibility Laws.
    3. Car inspection.
    4. Driver testing.
    5. Reporting accidents.

Discussion Questions

A. Discuss the need for national traffic standards and regulations.

B. Discuss State regulations as regards speed. Indicate how speed must vary with traffic conditions.

C. Why do you suppose the first laws were devised by man?

D. Why are local traffic laws necessary?

E. Discuss the use of hand signals.

F. Discuss the comparative difficulty of judging the distance and speed of an approaching automobile in daytime and at night when only the lights of the automobile are visible.

G. List and illustrate the types of traffic control devices in use today. What purpose do they serve?

H. Explain the correct driving practices necessary to control a car on the curves in the light of centrifugal force and momentum.

Projects

A. Secure a set of miniature cars. Lay out a large diagram of interesting streets, and experiment with various crossing problems.

B. Outline the activities of the Pennsylvania Department of Highways and the State Police.

C. Secure an enforcement officer to speak to the class or student body on "Traffic Accidents". Ask him to emphasize observance of laws.

References

American Automobile Association: Sound Driving Practices.

Keystone Automobile Club: Highway Safety Textbook for High School.

Manual of Regulations for Official Traffic Signs and Signals, Pennsylvania Department of Highways, Traffic Division.

National Conservation Bureau: Man and the Motor Car.

Vehicle Code, Department of Revenue.

Vehicle Code of Pennsylvania and Student Manual, Department of Revenue.

Visual Aids

Follow the White Marker. National Council of YMCA, New York, N. Y.

We Drivers. General Motors Corporation, Detroit, Michigan.

Why Be Careless? John Hancock Life Insurance Co., Boston, Mass

UNIT V—The General Public's Responsibility in the Motor Age

Objectives

A. To make known to the general public the contribution that Drive Education can make in solving the problem of motor traffi violations and accidents.

B. To create an attitude of personal responsibility on the part o every citizen.

C. To arouse in parents the desire for trained drivers in the moto age.

D. To acquaint the pupil with the governmental agencies and th private organizations working to insure safety.

utline of Work

A. The Automobile and How Society Has Grown to Depend on It.
  1. Public transportation.
  2. Private transportation: business and pleasure.
  3. The automobile's place in the urban community.
  4. The automobile's place in the rural community.
  5. Protective services of the automobile.
    a. Crime.
    b. Fire.
    c. Disease and accidents.
  6. The automobile's effect on the standard of living.

B. The Development of the Motor Car.
  1. Design.
  2. Cost.
  3. Comfort and safety.
  4. Safety features.
  5. Oil and gas consumption.
  6. A product of private enterprise.

C. Highway Development for Forty Years.
  1. Old cow paths to modern dream highways.
  2. Macadam to cement roads.
  3. Development in highway engineering.
  4. Highways of the future.
  5. How highways are financed.

D. The Driver.
  1. No improvement in drivers.
  2. Some states do not require a license.
  3. Some states lack driver's examination requirement.
  4. Neglect of driver's education.

E. Traffic Engineering.
  1. Traffic surveys.
  2. Parking problems in city.
  3. Agencies and organizations working for the prevention of traffic accidents.
  4. Devices used in solving traffic problems.
  5. Traffic engineering as a profession.
  6. Facing the future.

F. Legislation.
  1. Objectives sought by traffic laws.
  2. Uniformity of traffic laws needed.
  3. Laws vs. individual.
  4. Who is responsible for formulation of laws?
  5. What kind of laws are needed for the future?
  6. What laws have outgrown themselves?

G. Enforcement.
   1. The need for improving enforcement procedure.
   2. Purpose of enforcements.
   3. The need for more enforcement officers.
   4. Vocational opportunities.

H. Education.
   1. Need for traffic education and all phases of safety educatio for:
      a. Pre-school child, elementary child, junior and senior hig school and college students.
      b. General public.
   2. The human factor is the most vital element behind the whol phase of traffic education.
   3. Education and conservation of human lives.
   4. Education to influence traffic behavior.
   5. Setting up the educational program.
   6. Immediate effects.

Discussion Questions

A. Are traffic ordinances enforced in your community? What sug gestion would you make to help bring about better enforcement

B. What effect does interference with enforcement through a speci system have upon the morals of the enforcement agency?

C. What is the Commonwealth of Pennsylvania doing in regard t Traffic Legislation, Enforcement, Engineering, and Education

D. What evidences are there of efficiency of the enforcement agen in your community?

E. What is the duty of a traffic officer? A State Policeman?

F. In your opinion, are the driver tests difficult enough, or shou they be revised? Give reasons for your answer.

G. Are the traffic courts in your community serving their purpos

H. What is the post-war planning committee in your communi doing in regard to the traffic of the future?

Activities

A. Find out if your community is enrolled in the National Safe Council Traffic Safety Contest. How did it rank last year?

B. Make a survey to find out what, if anything, your community doing in regard to Traffic Education.

C. Survey your school area for traffic hazards and make reco mendations for the improvement of traffic safety.

D. Appoint a committee to arrange for outside speakers, represe ing all safety organizations in your community. Have th talk to your class at assemblies.

E. How well does your community measure up to the manual "Regulations for Official Traffic Signs, Signals, and Marking

References

American Automobile Association: Society's Responsibility, p. 1-108.

Commonwealth of Pennsylvania Publications: Creating Safer Communities; Manual of Regulations for Official Traffic Signs, Signals, and Markings; You Can Solve the Traffic Problem, by T. Elmer Transeau.

Keystone Automobile Club: Highway Safety Textbook for High Schools, p. 60-67.

National Conservation Bureau: Man and the Motor Car, p. 59, 237-239.

UNIT VI—Preparing the Pupil for Road Training

(It is recommended that this Unit be taught in the classroom, using the automobile shop as laboratory whenever possible.)

Contents of Unit VI

Part A. Mechanism and Care of the Car.
Part B. How to Drive a Car.

Objectives

A. To learn the essential safety features of the modern automobile.
B. To learn what makes the automobile run.
C. To cultivate good habits in the care of the automobile.
D. To appreciate the tremendous power developed in a car and how to use this power while driving.

Outline of Work

A. Mechanism and Care of the Car (This material may be taught concurrently with "How to Drive a Car", Unit VI, B).
  1. Art of Safe Driving.
    a. Knowing the automobile: a simple machine.
      (1) What makes it go.
      (2) Keeping the vehicle in good condition.
    b. Acquiring good driving habits.
  2. Principal mechanical parts of the automobile.
    a. Engine cylinder blocks, valves, pistons, connecting rods, bearings, crankshaft.
    b. Important systems: ignition system, fuel system, lighting system, cooling system.
    c. Gauges: speedometer, odometer, oil pressure, ammeter, temperature, fuel.
    d. The transmission of power: flywheel, clutch, drive shaft and universal joints, differential and rear axles, wheels and brakes.
  3. The principal safety features of the car.
    a. Visibility.
    b. Steering.
    c. Tires.
    d. Brakes.
    e. Head and tail lights.

4. Other safety features.
    - a. Windshield wiper.
    - b. Windshield.
    - c. Horn.
    - d. Stop light.
    - e. Adjustment of seat.
    - f. Rear view mirror.
5. Giving your car a square deal.
    - a. Battery.
    - b. Lubrication—oil fixtures.
    - c. Water and cooling system.
    - d. Spark plugs.
    - e. Tires.
    - f. Brakes.
    - g. Lights.
6. Checking yourself and car before starting.
    - a. Yourself.
        - (1) Health.
        - (2) Emotions.
        - (3) Fatigue.
    - b. Automobile.
        - (1) Tires.
        - (2) Water.
        - (3) Gas and oil.
        - (4) Lights.

B. How to Drive a Car (This material may be taught concurrently with "Mechanism and Care of the Car", Unit VI, A).

1. Important items to check before starting the engine.
    - a. Position of car.
        - (1) Adjustment of seat.
        - (2) Aids for comfort.
    - b. Tires.
    - c. Safety aids.
    - d. Gauges.
    - e. Control devices.
2. Starting and stopping the car.
    - a. Position of the car.
    - b. Steps in starting the engine.
    - c. Gear shifting.
    - d. Clutch, accelerator, and hand brake.
3. Steering the car.
    - a. Principles of steering.
    - b. Difficulties encountered in steering.
    - c. Double clutching.
4. Parking the car.
    - a. Parking parallel to curb.
    - b. Parking at angle to curb.
    - c. Parking on up-grade.
    - d. Parking on down-grade.

5. Driving in traffic.
    a. Movement of traffic.
    b. Proper position on highway for right and left turns.
    c. Proper signals for stopping.
    d. Approaching traffic signals.
    e. Observing movement of pedestrians.
    f. Driving in accordance with traffic conditions.
    g. Reading of highway signs.
    h. Turning around.
    i. Backing.

6. Observance of traffic signs and signals.
    a. Stop signs.
    b. Automobile traffic signals.
    c. The police officer.

7. Skills needed in driving under special conditions.
    a. Daytime driving.
    b. Night driving.
    c. Bad weather driving.
    d. Road conditions.
    e. Soft shoulders.
    f. Pedestrians and crowds.

8. Servicing your car.
    a. Car greasing and servicing.
    b. Changing of tires.
    c. State car inspection.

9. Taking the State Driver's Test.

When students have satisfactorily completed the course of instruction according to the factors indicated thus far, they are given a final driving test by the Pennsylvania State Police to determine their fitness to become licensed drivers. The Pennsylvania State Police will come to the school and give the test on the school's approved testing course.

A test is supervised by two or more State policemen depending on the number of students taking the State Test. It is the duty of one examiner to determine the student's knowledge of the vehicle laws of Pennsylvania pertaining to the operation and law in driving automobiles.

The examiner in the dual control car, or preferably in the car of the student's parents, tests the student's ability to operate a car in accordance with driving conditions.

A student to pass a test successfully must have self-confidence, ability to control a car under all conditions, make right and left turns properly, and turn a car safely in a narrow street.

It should be the policy of the school to permit all those who fail the State Test to continue their instructions until such a time as they are able to pass all requirements set up in this course, as well as those required by the examining department of the Pennsylvania State Police.

Discussion Questions

A. List the advantages of expert driver training over trial and error methods.

B. Give three ways in which a knowledge of the motor vehicle mechanism may prevent one from becoming involved in a highway accident.

C. If any of the following gauges—oil, water, gas, ammeter—fail to operate, what would you do?

D. What is the difference between mechanical and hydraulic brakes?

E. What is the advantage of having your car inspected every six months?

F. Discuss the different methods of cleaning and polishing the exterior of a car.

G. List five safety features you should look for when buying a car.

H. Discuss the advantages of keeping your car in good mechanical condition.

Activities

A. Secure a chassis of a car for use in your classroom discussion.

B. Have a committee gather as many pictures of the various parts of the car as possible for study.

C. Visit a first class repair station and observe the servicing of the cars.

D. Make up a rating scale to be used by passengers for rating drivers with whom they ride. Try this out on many drivers.

References

American Automobile Association: How to Drive, p. 1-105.

Elements of Automotive Mechanics, Heitner, Shidle, Bissell, D. Van Nostrand Co., New York, N. Y.

Keystone Automobile Club: Highway Safety Textbook for High Schools, p. 13-21.

National Conservation Bureau: Man and the Motor Car, p. 46-121.

Visual Aids

Four Cycle Gas Engine, State of Ohio Department of Public Instruction.

Power: Power Within; Story—Gasoline Motor: Bureau of Mines, Washington, D. C.

TIPS TO TEACHERS CONDUCTING DRIVER EDUCATION COURSE

This manual is intended only as a guide in setting up a Driver Education course. The references found on page 11 will furnish the teacher with all the necessary materials to conduct such a course. The success of the course will depend on the initiative of the teacher and the use which he or she makes of such material.

The True and False Test at the end of this guide is suggested as a method of determining the new student's knowledge on the subject of highway safety for the purpose of selecting those students to be in the first group to receive behind-the-wheel instruction when it is offered concurrently with the classroom instruction. It is not to be used at the end of the course as a test to determine what the student has learned. There are several good standard tests recommended in the Bibliography for this purpose.

The True and False Test will serve also as a means of stimulating discussion in the various fields of Driver Education.

Under Act 425, every eleventh grade student must have a medical examination the results of which are recorded on a school health card and are available to the instructor of the driver training course. It is recommended that before any student be allowed to take the behind-the-wheel instruction, his health card be checked to determine that his general physical condition is good and that he has no defect which would be a safety hazard. Any student taking behind-the-wheel instruction for whom a health card is not available, should be required to have a medical examination and a statement signed by his physician that he is in good general health and has no defect which would be a safety hazard.

The Revenue Department has approved procedure by which the Driver Education instructor stamps the learner's permit of the Driver Education student with the name of the high school in which he is taking the course, in order to identify the student to the examining officer. It will be an additional cooperative step if the Driver Education instructor furnishes the local examining officers of the State Police from time to time with the names of students who are prepared to take the State Licensing Examination.

QUESTIONS AND ANSWERS EVERY PENNSYLVANIA MOTORIST SHOULD KNOW

REMEMBER—FIFTY MILES IS THE SPEED LIMIT!

1. What is the Golden Rule of the Road?

   A. Show the same courtesies and consideration for other users of the highways as you would have them show you.

2. What is the age limit to apply for a learner's permit?

   A. Upon application a learner's permit may be issued by the Department to any competent person eighteen (18) years of age or over, or any competent person between sixteen (16) and eighteen (18) years of age who presents affidavit of consent from parent or guardian.

3. What is the age limit of paid operators of (1) trucks, (2) buses?

   A. 1. Eighteen.
      2. Twenty-one.

4. Give two reasons why you must sign your learner's permit, operator's license and registration card before operating on the highway.

   A. 1. Because operation is unlawful until cards are signed by person to whom issued.
      2. In order that you can identify yourself by your signature when stopped.

5. When does a Pennsylvania operator's license expire?

   A. The last day of January of the year following the calendar year for which issued.

6. What must you do if you lose your operator's license, registration card, or registration plates other than through suspension or revocation?

   A. Apply, within forty-eight hours, to the Bureau of Motor Vehicles for a duplicate issue on the form provided for that purpose. Obtain an affidavit from a notary public to prove application has been made, to be shown to an officer if you are stopped.

7. Where should you stop your vehicle before entering a highway at which a "THRU TRAFFIC, STOP" sign is erected?

   A. At a point where approach of traffic can be readily observed, with due regard for the safety of pedestrians using the crosswalk.

8. What must you do upon changing your address?

   A. Notify the Bureau of Motor Vehicles within forty-eight hours on the form provided by the Department.

9. What two things must you do on selling your car?

   A. Assign certificate of title to purchaser and remove registration plate.

10. Mention three reasons for being required to furnish proof of financial responsibility?

    A. 1. If operator's license has been suspended or revoked.

    2. If operator has been involved in an accident within past twelve months causing $100.00 or more in claims for property damages or injuries sustained by other persons.

    3. If person fails to pay within fifteen (15) days a final judgment resulting from a motor vehicle accident.

11. When must you present your motor vehicle for compulsory inspection?

    A. During first inspection period (May, June, and July) and during second inspection period (November, December, and January).

12. Name eight items of standard equipment of a motor vehicle which the law requires you to keep in good condition.

    A. Headlamps, Rear Lamps, Horn, Windshield Wiper, Brakes, Steering Gear, Tires, Muffler.

13. What is the speed limit while passing through a school zone, business or residential district?

    A. Fifteen miles per hour in school zone, 25 to 35 miles per hour in business or residential districts.

14. State five violations of the Vehicle Code which may result in suspension or revocation of operating privileges.

    A. 1. Driving while intoxicated.

    2. Failure to stop at the scene of an accident.

    3. Misstatement of fact on an application to the Bureau of Motor Vehicles.

    4. Failure to report an accident as required by law.

    5. Operating a motor vehicle without the permission of owner or custodian.

15. What must you do while driving past children who are walking or playing along the highway?

    A. Slow down, keep your car under control, and be ready to make a quick, SAFE stop.

16. What must you do if your car is disabled on the travelable portion of the highway?

    A. Drive or push it off traveled portion of highway, and, if at night, see that your lights are in working order and lighted. If the car is a commercial motor vehicle, 3 flares must be placed: one 100 feet to front; one 100 feet to rear; and one alongside the vehicle.

17. What types of motor vehicle accidents must be reported to the Department of Revenue, Bureau of Highway Safety, within twenty-four hours?

    A. Any motor vehicle accident resulting in injury or death to any person, or total property damage to all cars or property involved to an apparent extent of $50.00 or more.

18. What must you do if you are involved in an accident with a vehicle or property which is unattended, no matter how little damage is incurred?
    A. Stop, locate the operator or owner and identify yourself. If unable to locate this person, leave a note giving name and address in a conspicuous place on or about the vehicle or property, and submit regular accident report to the Department of Revenue, Bureau of Highway Safety, within twenty-four hours.
19. What three things must you do at the scene of an accident in which you are involved?
    A. 1. Stop immediately at the scene.
       2. Disclose identity.
       3. Render assistance to any person injured, including transportation of injured persons for medical or surgical treatment if it is necessary or requested by injured.
20. Even though you have the right of way at an intersection, what responsibility is placed upon you?
    A. To drive with due care and precaution for the safety of all persons using the highway and to refrain from arbitrary use of right of way.
21. What three things must you do when parking?
    A. 1. Shut off motor after parking within six inches of curb.
       2. Set brakes.
       3. Turn front wheels toward curb or side of highway.
22. How near may you park to (1) an intersection, (2) a fire hydrant, (3) a stop sign?
    A. 1. Twenty-five feet (if not restricted by a sign to some greater distance).
       2. Fifteen feet.
       3. Thirty feet.
23. Mention five places where it is unlawful to park along the open highway.
    A. 1. At any point where less than fifteen feet of travelable portion of highway is left for free passage of other vehicles.
       2. At any point where a clear view of the vehicle cannot be obtained from a distance of 300 feet from either direction.
       3. Along any highway excavation or obstruction or opposite the same, where less than twenty feet remains for free passage of other vehicles.
       4. On the roadway side of any vehicle which is stopped at the edge of the highway.
       5. Within forty feet of a stop sign or traffic signal.
24. What is the correct way to stop when signalled to do so by a police officer?
    A. Drive to the extreme right of the highway, giving signal of your intention.

PROPOSED FORM FOR PARENT'S PERMISSION

NAME ....

ADDRESS .... PHONE NO. ....

LEARNER'S PERMIT NO. .... EXPIRES ....

DATE ISSUED ....

DATE OF COMPLETION ....

INSTRUCTOR ....

(front)

Parent's Permission Card

Principal .... Date ....

Name of School ....

My signature appended hereto signifies my consent to permit my son/daughter, ..., to leave the building one period daily, if necessary, to allow him/her, to receive behind-the-wheel instruction in driving an automobile, under the guidance of a trained teacher on a driving course on or off the school grounds.

....

Parent's or Guardian's Signature

(reverse side)

TRUE AND FALSE TEST IN HIGHWAY SAFETY EDUCATION

(This material may be copied without written permission of the Department.)

1.	General Information	fifteen questions
2.	Driver	fifteen questions
3.	Engine of Automobile	fourteen questions
4.	Pedestrian	fourteen questions
5.	Accidents	fourteen questions
6.	Highways	fourteen questions
7.	Rules and Laws	fourteen questions

The statements listed below are either true or false. Place the word *True* in front of the statements you think are true, and the word *False* in front of those you think are false. See page 38 for the key.

General Information

1. ....Dynamite contains more potential energy than gasoline.
2. ....A small amount of alcohol has no effect on a driver's ability to judge distances.
3. ....It has been proved that women are better drivers than men.
4. ....There are approximately ten million automobiles in use today.
5. ....The greater the speed, the greater the number of miles per gallon of gasoline.
6. ....The faster a car goes, the hotter the tires become.
7. ....Safety Glass is made from one piece of a special type of glass.
8. ....Coasting is a safe way to descend hills.
9. ....One per cent carbon monoxide is not a fatal concentration, even though breathed over a long period of time.
10. ....Under-inflation is a basic cause of the breaking down of tire sidewalls.
11. ....A car should be lubricated at least every 200 miles.
12. ....The ability to judge distances is affected by fatigue.
13. ....Deflating tires to low pressure is a method of providing better traction when driving on ice.
14. ....Prepared decisions in driving are not dependable because they are often forgotten.
15. ....The reaction time of all individuals is the same.

The Driver

1. ....Young drivers have proportionately more accidents than older ones.
2. ....For a driver to run away from the scene of an accident is usually regarded as a confession of guilt.

3. ....The least important part of the automobile is the driver.
4. ....Radio sets playing in cars are dangerous to some drivers.
5. ....Drivers with tunnel vision can see objects coming towards them from the side.
6. ....Most drivers do not realize their bad driving habits.
7. ....The reaction time of a young inexperienced driver is longer than that of an old experienced driver.
8. ....A drunken driver is a safe driver if he realizes he must be careful.
9. ....Insects flying into the interior of the car should cause the driver to stop.
10. ....Drivers who are in a hurry are more than normally susceptible to fatigue.
11. ....In some states any person, even a lunatic, may legally drive a car.
12. ....Over-loading a car is dangerous and costly.
13. ....Good driving is essentially a question of good attitude on the part of the driver.
14. ....Beginners and experienced drivers usually make the same mistakes.
15. ....Impatient drivers constitute a serious driving menace.

Engine of the Automobile

1. ....The intake manifold distributes the gasoline and air mixture to the valves.
2. ....The automotive gas engine operates on a four-stroke cycle.
3. ....Valves are driven by the camshaft.
4. ....The crankshaft is driven by the camshaft.
5. ....The higher the compression ratio, the higher the power obtained.
6. ....The overdrive means that the driver is placed ahead of the engine.
7. ....With the shifting lever in neutral, the engine may run while the automobile remains stationary.
8. ....The distributor distributes power to the hydraulic brakes.
9. ....Automobile engines are usually cooled by water.
10. ....You may run an automobile without oil for approximately five miles without material harm to the engine.
11. ....The speed of the automobile is controlled by a device called the carburetor.
12. ....Knocking occurs when the spark is too far advanced.
13. ....Modern cars usually have four speeds forward.
14. ....Oil pressure is registered by the ammeter.

Pedestrian

1. ....Most pedestrian fatalities occur while the pedestrian is crossing the street in the middle of the block.
2. ....A good driver is usually a good pedestrian.

3. ....Pedestrians should walk on the right side of a rural highway.
4. ....A pedestrian should cross the street at a slow pace.
5. ....There is need for better pedestrian laws and stricter enforcement.
6. ....The wise pedestrain will, if confused, dart back and forth in traffic rather than stand calm and still.
7. ....School safety patrols operate for the purpose of reducing accidents to elementary school children.
8. ....It is lawful for pedestrians to stand on the roadway to solicit rides.
9. ....All pedestrians should wear or carry something white at night.
10. ....Pedestrians should observe traffic control signals at all times.
11. ....Motorists must yield right of way to pedestrians using crosswalk at intersections.
12. ....Before crossing the street, the pedestrian always should look in all directions from which traffic may come.
13. ....When leaving a vehicle, a person should get out on the side farthest from the curb or side of the road.
14. ....When walking on a highway with others, pedestrians should walk in single file, or not more than two abreast.

Accidents

1. ....As a result of automobile accidents, 30,000 people were killed in the United States last year.
2. ....On the average, one person is killed every fifteen minutes by an automobile.
3. ....More than half of the fatal motor accidents occur after sundown.
4. ....Drinking is not an important cause of vehicle accidents.
5. ....Mechanical defects of the vehicle contribute to a great proportion of accidents.
6. ....The accident rate has shown a tendency to decrease over the last fifteen years.
7. ....Elementary school children have made greater improvement in their accident record than older people.
8. ....Contributory negligence occurs when both people involved in an accident are in the wrong.
9. ....More people were killed in 1936 by the automobile than in any other year.
10. ....Accidents will be reduced only when human beings are sufficiently concerned.
11. ....A higher percentage of accidents occur in clear weather than during inclement weather.
12. ....The human factor is the principal cause of accidents.
13. ....Nearly one-half of those killed in traffic accidents are pedestrians.

14. ....Increase in the number of accidents decreases insurance rates.

Highways

1. ....A traffic circle is fundamentally poor planning.
2. ....It is illegal to come to a full stop on an open highway unless fifteen feet of the main traveled portion of the highway is left for free passage of other vehicles.
3. ....The best type of highway pavement for motoring safety is brick.
4. ....Three-lane highways have proved less dangerous than two-lane highways.
5. ....As the road surface varies, so does the braking distance.
6. ....Wooden-block roads provide good traction at all times.
7. ....Standards for highway warning signs have been adopted by the Commonwealth of Pennsylvania.
8. ....At present our highway system includes everything from dirt roads to super-highways.
9. ....The most modern road can be dangerous.
10. ....Banked curves are both dangerous and useless.
11. ....The best road surface is one that is smooth.
12. ....The ground beside the hard surface of a highway, often referred to as soft shoulders, constitutes a driving hazard.
13. ....The Department of Highways controls all roads in the State.
14. ....Black on red highway signs are seen best at all times by the motorist.

Rules and Laws

1. ....Street cars usually should be passed on the left.
2. ....Depressing the headlight beam is dangerous when approaching another car from the opposite direction.
3. ....It is legal to park two feet from a fire hydrant.
4. ....Always pull your car over to the right lane when making a left turn.
5. ....The owner of a car is responsible for damage done by his car only when he is driving.
6. ....The owner of a car is responsible for damage done by his car only when a licensed driver is using it.
7. ....Pennsylvania has a Financial Responsibility Law.
8. ....It is unnecessary to come to a complete stop at a stop sign if it is clear that there is no vehicle approaching the intersection from the other direction.
9. ....The speed limit of Pennsylvania is 55 miles per hour.
10. ....Generally speaking, it is safe practice to pass on the right.
11. ....When you hear a siren, you should pull over to the right and keep moving at your regular speed.

12. ....The driver approaching from the right at an intersection has the right of way if the two cars reach the intersection at the same time.

13. ....The minimum age limit for obtaining an operator's license in Pennsylvania is eighteen years.

14. ....Pennsylvania requires the inspection of all vehicles twice a year.

Key to True and False Test

General Information:

1. False
2. False
3. False
4. False
5. False
6. True
7. False
8. False
9. False
10. True
11. False
12. True
13. True
14. True
15. False

Driver:

1. True
2. True
3. False
4. True
5. False
6. True
7. False
8. False
9. True
10. True
11. True
12. True
13. True
14. False
15. True

Engine of Automobile:

1. True
2. True
3. True
4. False
5. True
6. False
7. True
8. False
9. True
10. False
11. False
12. True
13. False
14. False

Pedestrian:

1. True
2. True
3. False
4. False
5. True
6. False
7. True
8. False
9. True
10. True
11. True
12. True
13. False
14. True

Accidents:

1. False
2. True
3. True
4. False
5. False
6. False
7. True
8. True
9. False
10. True
11. True
12. True
13. True
14. False

Highways:

1. False
2. True
3. False
4. False
5. True
6. False
7. True
8. True
9. True
10. False
11. False
12. True
13. False
14. False

Rules and Laws:

1. False
2. False
3. False
4. False
5. False
6. False
7. True
8. False
9. False
10. False
11. False
12. True
13. False
14. True

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Saving Seconds: one reel, 16 and 35 mm, silent and sound, free.

American Automobile Association, Washington, D. C.:
Cross Road Puzzle: two reels, 35 mm, daily rental fee.

Chevrolet Motor Co., 440 Burroughs Ave., Detroit, Mich.:
Turn About Man: one reel, 35 mm, sound.

Delaware Safety Council, du Pont Building, Wilmington, Del. (J. R. Fader, Mgr.):
Youth Takes to the Highway: 16 mm, silent, color.

Department of Agriculture, Washington, D. C.:
Wheels of Progress: one reel, 16 mm, free.

Fireman's Fund Insurance Co., San Francisco, Calif.:
Remember Jimmy: one reel, 16 and 35 mm, silent and sound, free.

General Motors Corp., Highway Safety, Detroit, Mich.:
We Drivers: one reel.
Behind the Wheel: one reel.

John Hancock Life Insurance Co., Boston, Mass.:
Why Be Careless?: one reel, 16 and 35 mm, free.

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State of Ohio Department of Public Instruction, Columbus, Ohio:
Four Cycle Gas Engine: one reel, 16 mm.
The Automobile: one reel, 16 mm.
Development of Transportation: one reel.
Land Transportation: one reel, 16 mm, silent.

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Everybody's Business: free.

U. S. Bureau of Mines, Pittsburgh, Pa.:
Power: one reel, 16 mm, free.
Power Within: one reel, 16 mm, free.
Story—Gasoline Motor: one reel, 16 mm, free.
Carbon Monoxide—The Unseen Danger: one reel, 16 and 35 mm, free.

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Your Driving Habits: one reel, 16 mm.
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